

What is claimed is:

- 1 1. A method of testing an integrated circuit (IC), the method comprising:
2 driving a terminal on the IC to a state;
3 stopping the driving of the terminal;
4 floating the terminal for a predetermined time; and
5 determining a state of the terminal after the predetermined time.
- 1 2. The method of claim 1 further comprising:
2 determining quality of the IC based on the state of the terminal after the
3 predetermined time.
- 1 3. The method of claim 1, wherein driving includes applying a logic low to the
2 terminal.
- 1 4. The method of claim 1, wherein driving includes applying a logic high to the
2 terminal.
- 1 5. The method of claim 1, wherein determining includes measuring a voltage of the
2 terminal after the predetermined time.
- 1 6. A method of testing comprising:
2 charging a pin on an integrated circuit (IC) until it reaches a known state;
3 stopping the charging of the pin;
4 floating the pin for a predetermined time;
5 sampling a state of the pin after the predetermined time; and
6 determining a test result of the pin based on the state of the pin after the
7 predetermined time, wherein the method is performed with Boundary
8 Scan.

- 1 7. The method of claim 6, wherein charging includes driving the pin to a logic low.
- 1 8. The method of claim 6, wherein charging includes driving the pin to a logic high.
- 1 9. The method of claim 6, wherein sampling includes determining if the pin changes
2 state after the predetermined time.
- 1 10. A method of testing comprising:
2 driving the first terminal on an integrated circuit (IC) to a first state;
3 driving the second terminal on the IC to a second state;
4 stopping the driving of at least one of the terminals;
5 floating at least one of the terminals for a predetermined time; and
6 determining a state of at least one of the terminals after the predetermined
7 time.
- 1 11. The method of claim 10 further comprising:
2 determining quality of the IC based on the state of at least one of the terminal after
3 the predetermined time.
- 1 12. The method of claim 10, wherein driving the first and second terminals include
2 applying opposite states to the terminals.
- 1 13. The method of claim 10, wherein determining includes measuring a voltage value
2 of least one of the terminals.

1 14. A method of testing comprising:
2 charging the first pin on an integrated circuit (IC) to a first known state;
3 charging the second pin on the IC to a second known state;
4 stopping the charging of at least one of the pins;
5 floating at least one of the pins for a predetermined time;
6 sampling a state of at least one of the pins after the predetermined time; and
7 determining a test result of at least one of the pins based on the state of at least
8 one the pins after the predetermined time, wherein the method is
9 performed with Boundary Scan.

1 15. The method of claim 14, wherein charging the first and second terminals includes
2 applying opposite states to the terminals.

1 16. The method of claim 14, wherein sampling includes determining whether at least
2 one of the pin changes state after the predetermined time.

1 17. A method of testing a circuit module, the method comprising:
2 tri-stating all of the terminals on any of the integrated circuits (ICs) connected
3 to a net, the ICs located on the same circuit module, and wherein the ICs
4 includes different types of ICs and perform different functions,
5 driving the net to a state through a terminal on one or more of the ICs;
6 stopping the driving of the terminal;
7 floating the net for a predetermined time; and
8 determining a state of the net after the predetermined time, wherein the
9 method is performed with Boundary Scan.

1 18. The method of claim 17 further includes:
2 determining quality of the circuit module based on the state of the net after the
3 predetermined time.

1 19. The method of claim 17, wherein determining includes determining if the net
2 changes from one state to another.

1 20. An apparatus comprising:
2 an integrated circuit (IC); and
3 a tester connected to the IC, wherein the tester performs leakage test on the IC by
4 a method of:
5 driving the terminal of an IC to a state;
6 stopping the driving of the terminal;
7 floating the terminal for a predetermined time; and
8 determining a state of the terminal after the predetermined time.

1 21. The apparatus of claim 20, wherein the IC includes a plurality of Boundary Scan
2 pins, wherein the tester connects to the IC through the Boundary Scan pins.

1 22. The apparatus of claim 20, wherein the tester is a computer.

1 23. An apparatus comprising:
2 an integrated circuit (IC); and
3 a tester connected to the IC, wherein the tester performs a leakage test on the IC
4 by a method of:
5 driving the first terminal of an IC to a first state;
6 driving the second terminal of an IC to a second state;
7 stopping the driving of at least one of the terminals;
8 floating at least one of the terminals for a predetermined time; and
9 determining a state of at least one of the terminals after the predetermined
10 time, wherein the method is performed with Boundary Scan.

1 24. The apparatus of claim 23, wherein the IC comprises a plurality of Boundary Scan
2 pins, wherein the tester connects to the IC through the Boundary Scan pins.

1 25. The apparatus of claim 23, wherein the tester performs the leakage test through
2 the Boundary Scan pins.

1 26. The apparatus of claim 23, wherein the tester is a computer.

1 27. A machine-readable medium having instructions stored thereon capable of
2 causing a tester to perform method of testing, the method comprising:
3 charging the pin of an integrated circuit (IC) until it reaches a known state;
4 stopping the charging of the pin;
5 floating the pin for a predetermined time;
6 sampling a state of the pin after the predetermined time; and
7 determining a test result of the pin based on the state of the pin after the
8 predetermined time.

1 28. The method of claim 27, wherein charging includes driving the pin to a logic low.

1 29. The method of claim 27, wherein charging includes driving the pin to a logic
2 high.

1 30. The method of claim 27, wherein sampling includes determining if the pin
2 changes state after the predetermined time.

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